

FEATURE PHOTOGRAPHS

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BUTTERFLY PHOTOGRAPHY IN THE TROPICS

Butterfly photography in tropical habitats is usually a much greater challenge than photographing butterflies in temperate North America. Here, I briefly explain some of the techniques I have developed in the tropics, and recount some personal experiences that emphasize the points I wish to make.

Since 1973, when I first became interested in photographing butterflies, I have visited several tropical countries, including Malaysia, East Africa, Mexico, Costa Rica, Venezuela, and Brazil (twice). The examples in this article are from my most recent trip to Brazil, in November 1989, led by Thomas C. Emmel for Holbrook Travel of Gainesville, Florida.

Equipment and Techniques

In the tropics, I use the same basic equipment that I use to photograph butterflies in North America (Opler, P. A. & G. O. Krizek, 1984, *Butterflies east of the Great Plains: An illustrated natural history*, Johns Hopkins Univ. Press, 294 pp.): a 35 mm single lens reflex camera with a 200-mm macro lens and a flash unit mounted directly to the hot shoe connection on the camera body. I shoot Ektachrome film (Eastman Kodak Company, Rochester, NY 14650) for color transparencies (ASA 200) with the camera's shutter speed set at $\frac{1}{250}$ th of a second and the lens set to a small aperture (=high f-stop). The combination of flash and small aperture produces well-lit close-up photographs with acceptable depth of field. Batteries in the flash unit should be changed about every third roll, and sweat should be wiped off camera equipment each evening to insure proper operation.

I recommend that the photographer work at a given tropical locality for a number of days in a row. In that way familiarity with the community of butterflies can be gained and the photographer can work on photographing particular species. On a two-week trip I can usually count on obtaining good to very good photographs of 50-70 butterfly species.

Ideally, I try to take many photographs of the same butterfly using several lens aperture settings. On my camera these are f32, f22, and f16. Such a range of exposures gives me the best chance of having at least one properly exposed and correctly focused photograph. I try to collect the subjects photographed so that I can identify them after my return home. Often, however, I am able to take only one exposure and am unable to capture the butterfly before it flies away. Even more discouraging is the fact that several times on each trip I see the photo of a lifetime take off into the forest before I am able to take a single exposure. On my last trip this happened when a freshly emerged *Pierella* (Satyrinae) with iridescent blue upper hindwings perched in front of me and then took off one second before I could press the shutter release.

Of course, sometimes my luck is good. Once, as I followed a patrolling *Haetera piera* (Satyrinae), it disappeared around a tree trunk, and when I came around the tree I discovered a mated pair, with male and female leaning in different directions (Fig. 1).

Butterfly Behavior

In many tropical habitats, butterfly behavior is sufficiently different to cause problems for the photographer. One of the standbys of the temperate zone photographer—butterflies visiting low flowers—is usually not available. Instead, tropical butterflies must be photographed while perching, while mating, or while feeding on rotting fruit, animal dung, or bird droppings. Many butterflies perch too high in trees to be photographed or perch on the underside of leaves. Furthermore, tropical forests are filled with would-be predaceous birds, large ants, anoles, and large insects. As a result, most tropical butterflies are very nervous and are apt to land only for a second or two.

Attractive nymphalids usually perch with their wings closed and open them only periodically, and then only for a brief moment. The photographer must be aware of this and must wait patiently with the camera in hand ready to take an exposure. In this way

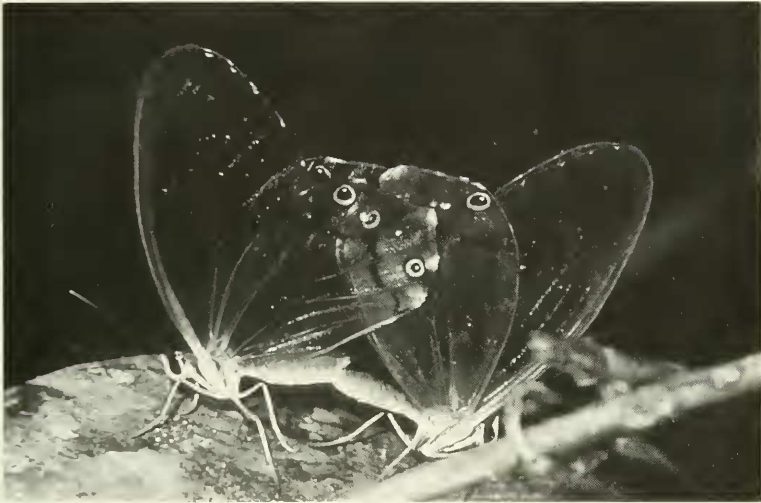


FIG. 1. *Haetera piera* L. (Satyrinae), pair in copula. Brazil: Rondonia, 60 km S of Ariquemes; 9 November 1989.

I have been able to photograph the iridescent blue upper wing surfaces of morphos (*Morpho helenor/achilles*) and preponas (*Prepona demophon*) (Nymphalidae) (Plate 1). The use of baits is a good way to attract these butterflies to a convenient area for photography. The best baits are feces, rotting meat, or rotting fruit. African collectors have told me that excrement from big cats such as leopards is the best bait for *Charaxes* spp. (Charaxinae). I often use human excrement or rotting fruits such as mangos or



FIG. 2. *Eurybia lycisca* (Ww) (Riodinidae). Costa Rica: Cartago Province, Turrialba; 15 May 1985.



FIG. 3. *Morpho helenor/achilles* (Morphinae), rare behavior by an otherwise shy species, exploring the author's left index finger with its proboscis. Brazil: Rondonia, 60 km S of Ariquemes; 10 November 1989.



FIG. 4. *Batesia hypochlora* Felder (Nymphalinae), perching on the author's left calf. Brazil: Rondonia, 60 km S of Ariquemes; 11 November 1989.

PLATE I. Above: *Prepona demophon* L. (Nymphalinae), feeding at rotting banana. Brazil: Rondonia, 60 km S of Ariquemes; 3 November 1989. Below: *Temenis pulchra* Hewitson (Nymphalinae), upperside of basking male. Brazil: Rondonia, 60 km S of Ariquemes; 11 November 1989. →





PLATE 2. Above: *Euselasia (eutychus* species group) (Riodinidae), pair in copula. Brazil: Rondonia, 60 km S of Ariquemes; 9 November 1989. Below: *Amarynthia menertia* Cramer (Riodinidae). Brazil: Rondonia, 60 km S of Ariquemes; 5 November 1989.

bananas to make several bait stations on the ground and periodically visit them in sequence to see what has arrived.

To photograph metalmarks or skippers perched beneath leaves, I must lie on my back and inch slowly under the plant. Of course, just as I am in the perfect position and ready to "capture" my quarry on film, it may flit off to another leaf. Once, in Costa Rica, I repeated my back inching approach to a perched *Eurybia lycisca* (Riodinidae) ten times before I was able to focus in and with trembling hands takes several photographs (Fig. 2).

Nymphalids may land on sweat-drenched clothing or arms instead of the intended bait, and, rather than just shoo them away, I try to photograph them. This can be especially difficult because they are so close that the minimum lens to subject distance is just barely possible, and because I have to hold the lens, camera, and flash in one hand while the butterfly perches on the other (Fig. 3). Sometimes a butterfly may perch on my pants in a position awkward for photography (Fig. 4). Despite occasional difficulties and discomfort resulting from biting insects, high heat and humidity, fogged lenses, and occasional dehydration, patience and persistence will be rewarded with crisp, close-up photographs of some remarkable butterflies (Plates 1 & 2).

In summary, photographing butterflies in the tropics can be more rewarding than just trying to capture and kill each butterfly as quickly as you discover it. In the course of my photography I have learned much about the behavior of tropical butterflies. It is a pleasure to share this knowledge through my photographs.

All photographs were taken with a Nikon FA camera, fitted with a Micro-NIKKOR 200mm 1:4 lens, and, when appropriate, Nikon extension rings PN-11 and PK-13. A Nikon SB-15 electronic flash, attached to the hot shoe on the camera, was used in conjunction with Ektachrome 200 slide film. The Nikon FA camera has a TTL (through the lens) metering system that automatically admits the necessary amount of light from the Nikon SB-15 flash in TTL mode. Exposures were taken at $\frac{1}{250}$ sec at apertures from f16-f32.

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